

Comparisons of Job Characteristics

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Hydrologists (19-2043)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 83

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematics	9.2	17.7	12.3	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	17.4	9.7	<<	Extensive education and/or training may be required
Geography	3.9	16.7	9.7	<<	Extensive education and/or training may be required
Physics	4.3	15.7	9.9	<<	Extensive education and/or training may be required
Chemistry	4.8	15.6	13.2	<	Expanded education and/or training may be required
Biology	3.7	13.6	11.4	<	Expanded education and/or training may be required
Design	5.2	12.6	7.1	<<	Extensive education and/or training may be required
Law and Government	5.9	11.3	9.8	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Critical Thinking	10.8	14.5	12.3	<	A higher skill level may be required
Science	4.5	13.0	10.3	<	A higher skill level may be required

Mathematics	6.2	12.8	9.2	<<	Extensive development of skills in this area may be required
Programming	2.2	6.5	1.8	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 92			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Hydrologists (19-2043)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Inductive Reasoning	10.2	14.6	11.4	<<	Extensive improvement in abilities may be required
Written Comprehension	11.0	14.6	13.9	0	Current ability level may be sufficient
Written Expression	9.8	14.1	12.9	0	Current ability level may be sufficient
Problem Sensitivity	11.1	13.9	11.9	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	13.8	9.1	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	13.4	11.8	<	Some improvement in abilities may be required
Flexibility of Closure	7.8	12.0	9.3	<<	Extensive improvement in abilities may be required
Originality	7.6	11.5	8.2	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	11.3	7.7	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	11.2	9.5	<	Some improvement in abilities may be required
Number Facility	6.3	10.8	9.0	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 85
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Hydrologists (19-2043)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Advise clients or customers	19	
Advise governmental or industrial personnel	28	
Analyze ecosystem data	69	

Analyze scientific research data or investigative findings	27
Collect geographic or physical data	81
Collect scientific or technical data	30
Collect statistical data	47
Communicate technical information	4
Conduct field research or investigative studies	52
Conduct laboratory research or experiments	57
Confer with scientists	54
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Develop tables depicting data	33
Direct implementation of new procedures, policies, or programs	60
Draw maps or charts	69
Explain complex mathematical information	30
Maintain records, reports, or files	5
Make decisions	24
Monitor atmospheric or meteorological processes	89
Prepare environmental impact or related environmental reports	81
Prepare reports	8
Prepare technical reports or related documentation	22
Record test results, test procedures, or inspection data	48
Understand properties of gases or liquids	78
Use chemical testing or analysis procedures	54
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use mathematical or statistical methods to identify or analyze problems	30
Use physical science research techniques	68
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 83

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)
Associated Occupation: Hydrologists (19-2043)

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Chemical evaluation instruments and supplies	10

Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Hydrological instruments	31
Industry specific software	1
Information exchange software	1
Laboratory pumps and tubing	23
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Network applications software	1
Pipettes and liquid handling equipment and supplies	16
Pumps	9
Sampling equipment	12
Soil measuring equipment	20
Sound generating and measuring equipment	19
Spectroscopic equipment	10
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.